

A Newsletter
About Prevention,
Preparedness,
and Response

Spill SCENE



Evolution of the Spill Prevention, Preparedness, and Response Program

After the 1988 *Nestucca* spill off Grays Harbor and the 1989 *Exxon Valdez* spill in Prince William Sound, Alaska, Washington's citizens and legislature became very concerned about the potential for massive environmental damage from an oil spill in Washington waters. Since all crude oil refined in Washington arrives via ship or pipeline, the need for vessel and facility spill prevention, preparedness, and response was considered to be extremely important. Therefore, in 1991 the Oil Spill Prevention and Response Act became law.

When the law became effective, the state Department of Ecology (Ecology) developed an effective prevention and preparedness program for land-based facilities, and expanded its response program. At the same time, the Office of Marine Safety was established and focused on vessel spill prevention and preparedness.

In 1997, the Office of Marine Safety merged with Ecology creating the Spill Prevention, Preparedness, and Response Program (Spills Program).

The **prevention section** now regulates large commercial vessels, oil-handling facilities (including refineries), and pipelines. Regulatory activities include vessel and oil-handling facility inspections, incident investigations, the Voluntary Best Achievable Protection (VBAP) and Exceptional Compliance (ECOPRO) programs for tank vessels, the Neah Bay rescue tug, and prevention plan review.

The **preparedness section** requires oil-handling facilities and large commercial vessels to have an oil spill contingency plan and to regularly participate in oil spill drills and exercises. The purpose of the drills is to increase the industry's readiness for actual emergencies, improve teamwork with state and federal officials, and assess the effectiveness of their response capabilities and plans.

The **response section** is dedicated to the containment and cleanup of oil and hazardous materials spills, methamphetamine drug lab cleanup, and provides hazardous materials training to local jurisdictions. Responders also began weapons of mass destruction core training for incidents involving chemical, biological, radiological and explosive hazards.

When an oil spill of more than 25 gallons reaches surface water, the **natural resources unit** collects information necessary to conduct a Natural Resource Damage Assessment (NRDA). The information is provided to the Resource Damage Assessment Committee, whose members are made up of state natural resource trustees, to determine the path of the damage assessment and provide direction and approval for proposed restoration projects.

The Spills Program develops educational materials including *Focus* sheets, prevention and safety advisory bulletins, the program website, press releases, and the *Spill Scene* newsletter.

In addition to conducting these activities, the Spills Program has developed effective partnerships with industry, the U.S. Coast Guard (USCG), environmentalists, Native American tribes, government agencies and others.

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Program Manager Speaks

The year 2003 was challenging, ending with the Foss barge spill at the Chevron-Texaco Terminal at Point Wells, north of Seattle on Dec. 30. Cleanup efforts continued into March as well as the investigation into the cause of the spill. However, through crisis comes change which can lead to better performance and protection of the environment.

Our primary focus is on the elements that we can influence and control – spill prevention through education and inspections, preparedness via plans and drills, and spill response through a focus on effective incident management. The program continues to evolve into one that looks for opportunities to partner, educate and train, and along the way, refine its rules and protocols as needed.

One area where challenging goals were set was in amending the oil spill contingency plan rule. The rule development process involves multiple partners and we are building strong relationships as a result of this team effort. Although we didn't complete the rulemaking in 2003 as we had hoped, we did initiate an independent oil spill modeling study that will assist us in completing our advisory committee process by early summer. We expect to complete a practical rule that is protective of our environment and economy in late 2004.

Another important accomplishment was obtaining long term funding for emergency towing at Neah Bay. The 2003 legislature established a new five year funding mechanism to support this important oil spill prevention tool.

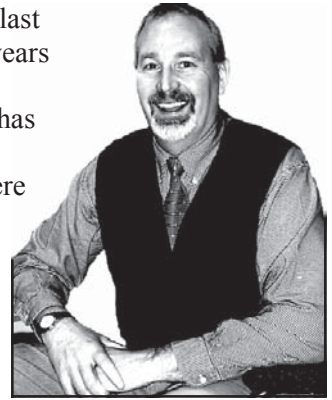
In the last two years we have become a world leader in identifying vessels that illegally dump waste oil at sea. We provide technical expertise to our Coast Guard partners and this has led to several federal prosecutions in Washington, Oregon and California. We will continue to assist in these investigations and prosecutions as long as this illegal activity continues.

The following enhancements were added to help improve the program's ability to be "data driven":

- GPS units were supplied to field staff so that the location of spills can be accurately tracked;
- Remote access accounts were set-up to enable staff to connect to Ecology's network from any phone connection;
- Digital cameras were purchased for documenting and communicating in real-time on field conditions;
- The Environmental Report Tracking System and the Marine Information System were updated to provide better access to a wide range of data;
- A document imaging project was begun to enable rapid and remote access to important documents; and
- Updates to the Spills Program website are completed regularly to provide both staff and the public access to information on numerous topics.

Our program staff continues to be our greatest asset. They are dedicated professionals working hard to balance the economic goals of business while focusing on their key mission - protecting public health, safety and the environment. Their devotion to the work is remarkable. I will continue to place a high premium on effective communication and collaboration. I believe that it is through this approach that our goals can be best accomplished.

In the last thirteen years since our program has been in place, there has been a dramatic decrease in major oil spills.



This is a testament to the efforts of our partners in industry and the Coast Guard– working together with us toward the common goal of preventing oil spills; under the vigilance of environmentalists, the public, local government, and tribes.

As I look forward to this year's continuing efforts, I see the program acting on the new spill prevention legislation that just passed, completing the tug escort study, adopting the final oil spill contingency planning rule, and working hard to strengthen our incident management capacity for major oil and hazmat spills. We will continue to remain at the forefront of our cause to protect the state's environment and economy, and to seek compelling ways for the public and industry to do the same.

Dale Jensen
Spills Program Manager

Prevention Section

The oil spill prevention section is dedicated to keeping pollutants out of the environment thereby protecting the environment and public health. Prevention inspectors visit oil-handling facilities and check for compliance with approved operation manuals and training certification programs. They also inspect vessels identified as most likely to cause problems. They investigate spills and incidents and collect data to be analyzed and shared with the marine transportation industry in an effort to prevent future occurrences. Up-to-date procedures are promoted to keep the industry safe and the state spill free.

Bunkering Inspections

Vessels that have undergone a bunkering (refueling) inspection continue to show a significant reduction in spills during bunkering operations. Since the year 2000, no bunkering spills have occurred within two months of inspection; in 2003, in fact, no bunkering spills have occurred from vessels inspected during the previous year. (See Figure 1 below) Recognizing this influence on vessel spills, program inspectors have continued to emphasize bunkering inspections during vessel boardings. Bunkering inspections made up 42 percent of the total vessel compliance inspections in 2003. This ratio has averaged about 50 percent since the year 2000.

Vessel Inspections

Last year, 4,537 tank barges transited Puget Sound and the Columbia River. That figure represents 1,086 more than 2002. In addition there were 7,119 cargo, passenger and tanker vessels entering Puget Sound, the Columbia River and Grays Harbor in 2003. This was a slight increase (+67) over the previous year. Lastly, there were 166,788 ferry transits in Puget Sound in 2003 – just 28 more than in 2002.

Vessel inspectors from the Portland and Seattle field offices conducted

1,011 inspections on these vessels. This was 140 more vessel inspections than the previous year.

Vessel Oil Dumping Investigations

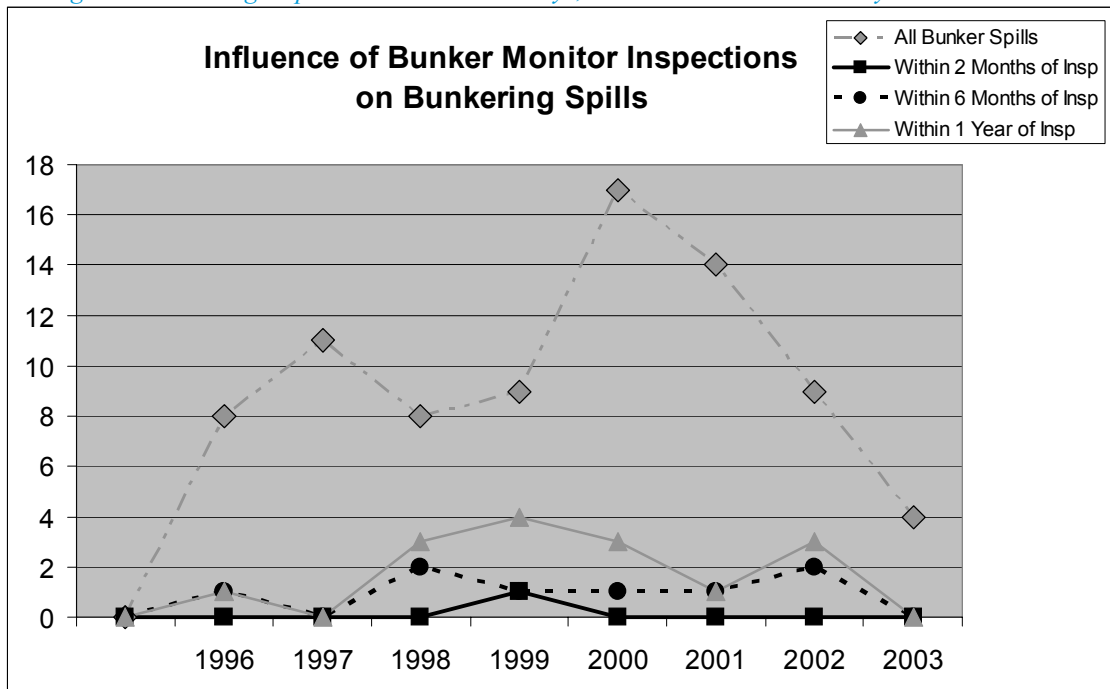
An estimated 65 million gallons of vessel-generated oil sludge is dumped each year by unethical ship operators worldwide according to the 2003 National Academy of Sciences report, Oil in the Sea III. And some investigators believe it may be two or three times that amount.

In 2003, Ecology vessel inspectors partnered with the USCG, Department of Justice (USDOJ) and the U.S. Environmental Protection Agency (EPA) in efforts that led to the prosecution and conviction of several ship operating companies and engineers in the illegal disposal of waste oil at sea.

A federal/state inspection team boarded the *M/V Grand Glory* in February 2003 while it was docked at the Port of Vancouver, Washington. After discovering discrepancies

in the oil record log book, they learned that the ship's engineers used a hose to bypass the required pollution control equipment, discharging oily waste generated by the ship directly into the ocean. Ta Tong Marine Company Ltd. pleaded guilty to two federal criminal charges relating to the falsification of records concealing the inten-

Figure 1 – Spill rates in Washington waters while bunkering for all ships versus ships that had undergone a bunkering inspection in the last 60 days, six months and within one year.



tional dumping of waste oil into the ocean. In March, the chief engineer also pled guilty to a felony false statement relating to the same dumping activity.

In September 2003, the *M/V Hoegh Minerva* was docked at the Port of Vancouver when inspectors detected an area where a “magic pipe” had been temporarily installed to bypass pollution prevention equipment and discharge oil waste directly into the ocean. Additionally, false entries in the vessel’s oil record book were identified. An engineer on the vessel pleaded guilty to a felony violation related to obstructing the USCG’s investigation of intentional dumping of waste oil.

The environmental damage of waste oil dumping or any oil spill is difficult to measure, but oil kills birds, fish, seals and other marine animals, as well as plant life.

Spills Program vessel inspectors and investigators continue to work with federal partners on several other criminal investigations of vessels illegally dumping oil, providing expertise and experience to joint boarding teams on the west coast and coordinating with the USDOJ when the cases are brought up for prosecution.

Vessel Incident Investigations

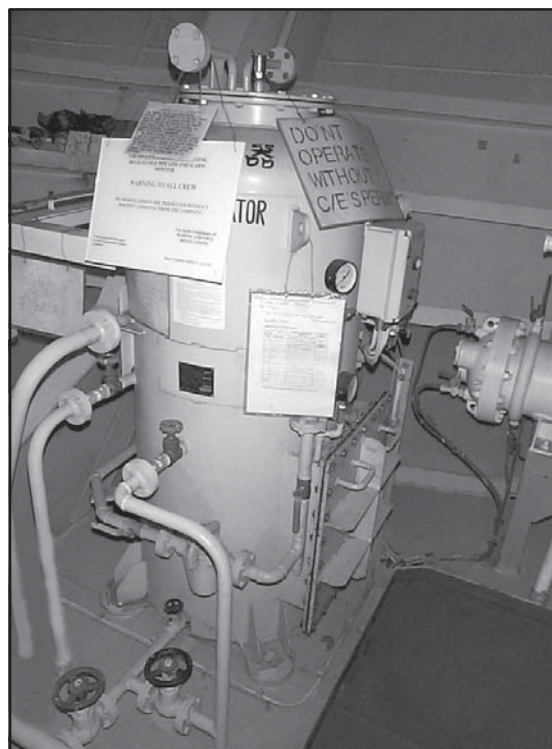
Thirteen detailed investigations of marine incidents (including spills) were completed in 2003. Six of these incidents involved spills for which an Investigation Findings report was produced to support program-wide activities (i.e. prevention recommendations, spill penalties, NRDA recovery efforts). All involve an analysis of the incident to determine lessons learned.

Unix Line Pte. Ltd. and Springs Navigation pleaded guilty to criminal charges arising from a 50 gallon oil spill from the chemical tanker *Kaede* in Tacoma, Washington on October 22, 2002. As a result of the conviction resulting from cooperative federal-state investigation of this case, \$300,000 of the \$750,000 federal fine was earmarked for environmental restoration projects in the Commencement Bay area. In February 2003, Ecology received a \$34,000 payment for a penalty issued to Unix for the oil spilled and recovered another \$5,194 for investigation and cleanup costs.

In March 2003, Ecology issued a \$67,500 penalty to Evergreen Marine Corporation for spilling 500 gallons of oily waste from the company’s container ship *Ever Group*. Evergreen initially denied responsibility for the spill that carried oil down the Columbia River leaving a 400 yard wide by half-mile long oily sheen to drift 38 miles down stream. Lab analysis of oil and fuel samples taken from several ships and facilities in the Kalama area later confirmed that the oil had come from the *Ever Group*, which was docked in the area at the time of the spill.

In November, Ecology issued an \$81,000 fine to Naftomar Shipping and Trading Company Ltd. for spilling oil from its cargo ship, the *Gaz Diamond*, into the Port Angeles Harbor. In May 2002, an estimated 1,188 gallons of fuel oil spilled when its tanks overfilled while refueling. Oil collected in nearby commercial fish pens, docks, recreational beaches, log booms, private boats, the public boat launch, a USCG vessel, and the Puget Sound Pilot Station. Ecology also assessed Naftomar \$41,000 to compensate for the damage caused to the environment.

These incidents provide opportunities to learn from mistakes and identify shortcomings in the marine safety system. Detailed analysis of the incidents allows for systematic improvements in marine safety in the form



Vessel oily water separator.

of lessons learned and prevention recommendations. It also provides detailed and verified information upon which Ecology staff can make informed decisions regarding marine safety and spill prevention.

Facility Incident Investigations

In October 2003, a Seattle marine fuel dealer was fined \$28,242 for supplying oil to a tank barge without having a state-approved spill-prevention plan.

Ecology fined the Covich Williams Company, after a thorough investigation, for transferring 12,371 gallons of diesel oil from above-ground storage tanks to the tank barge *Kitsap* in February 2003. The *Kitsap* then sailed into Elliott Bay, where the oil was used to fuel a cargo vessel.

Under state law, facilities that transfer oil to or from tank vessels or pipelines must plan for how they will prevent and respond to oil spills. The plans are reviewed and approved by Ecology. Shore-side facilities that do not transfer oil to or from a tank vessel or pipeline are

not required to meet the state's planning standards. Covich Williams was operating as such a facility.

By not complying with state requirements, the company gains an unfair economic advantage over other companies that annually spend time and resources maintaining plans and participating in oil spill exercises and training.

Sea Coast Towing, the owner/operator of the *Kitsap*, received a notice of violation for receiving oil from a non-regulated facility, but was not fined. Sea Coast also changed business practices to ensure it would not happen again.

Both companies have since worked cooperatively with Ecology to be in compliance.

Additional 2003 facility investigations included:

- Terminal 18 pipeline: Resolution of the appeal of this penalty against the Port of Seattle includes reduction in the penalty amount in exchange for a schedule for decommissioning of the old pipelines no later than Dec. 31, 2004. If the deadline is not met, the Port will be charged one-fifth of the amount waived for each month the decommissioning is delayed.
- Terminal 18 jet fuel pipeline: Investigation still under way with the Port of Seattle and Kinder-Morgan.
- McNeil Island: A day tank in the emergency generator building overflowed when an automatic shutoff switch malfunctioned. The facility replaced the switch and implemented additional items to prevent recurrence.
- ConocoPhillips Renton terminal: A premium gasoline tank developed leaks due to microbiologically influenced corrosion. The bottom has been repaired and coated with epoxy to prevent recurrence. Enforcement action is ongoing.
- U.S. Oil tank release: A small release of crude oil occurred from a hole in the bottom of a tank into secondary containment. The tank was cleaned and the bottom of the tank was rebuilt.
- Shell Harbor Island dock pipeline: A small release of diesel occurred from an under-dock pipeline as a result of heavy corrosion. All of the under-dock pipelines were replaced with new, above-dock pipelines.

Ecology Regulation Chapter 173-180A WAC requires facility owners to inspect all of their aboveground storage tanks in accordance with the American Petroleum Institute Standard 653. Inspections are to be completed by June 2004. All Washington facilities were surveyed to determine if they would be able to meet the inspection deadline. Initially five facilities stated they would not meet the deadline. One of these facilities has accelerated their schedule and the remaining four facilities will receive an administrative order making the schedule adjustment they submit to Ecology an enforceable deadline.

Facility Plan Review and Inspections

Six facility prevention plans and seven operations manuals were reviewed and approved in 2003. Several manuals were submitted due to corporate reorganizations, new equipment or procedures, or as a result of a spill. Review of the manuals goes hand-in-hand with inspection of the facilities. The inspections provide an important tool for verifying the content of the manuals.

VBAP/ECOPRO Programs

The Voluntary Best Achievable Protection (VBAP) and Exceptional Compliance (ECOPRO) programs for tank vessels marked its fourth year of successful operation in 2003. Participants included 29 tank ship and tank barge companies from eight foreign countries and the U.S. Under this program, owners and operators voluntarily meet Washington's VBAP and ECOPRO standards, increasing their overall level of marine safety and reducing the probability of a spill.

One of the highlights of 2003 was the granting of ECOPRO-full member status to MTM Ship Management Ptd. Ltd. of Singapore. MTM is the third company to achieve this honor and the first non-U.S. company to enjoy this status.

Two of the three major oil transportation companies operating tank ships in the Trans-Alaska Pipeline System trade are ECOPRO full members. This represents approximately 60 percent of crude oil tanker entries into Washington waters during 2003.

Interest in these voluntary programs continued to increase in 2003 with two companies pursuing upgrades from VBAP to ECOPRO. One of these companies, a U.S. company, operates articulated tug barges and the other company, based in Canada, operates conventional tank barges. If successful, they will be the first tank barge companies to make this important commitment to having an exceptional safety culture.

Neah Bay Rescue Tug

Ecology continued to pursue long-term funding to make the Neah Bay rescue tug a permanent spill prevention measure for Washington's outer coast and the western Strait of Juan de Fuca. Discussions were held with stakeholders and state lawmakers emphasizing the usefulness of rescue tugs as a precautionary measure for vessels entering Puget Sound.

In the spring of 2003, the legislature provided a mechanism for funding the rescue tug and for additional "stand-by tug" capability. The stand-by tug funding allows Ecology to spot charter and pre-position tugs as a preventive measure, during periods of increased risk such as major storms.

The tug is available to assist ships in distress off the outer coast and in the Strait of Juan de Fuca throughout the fall and winter seasons. Winter storms present a higher risk of oil spills from the nearly 10,000 tankers and cargo ships traveling through the strait each year.

Washington's coastline and the Strait of Juan de Fuca area are considered some of the most pristine in the lower 48 states. Beaches in the Olympic National Park, the Olympic Coast National Marine Sanctuary and tribal lands are directly at risk for major oil spills since they are adjacent to the shipping route.

A major spill could hurt Washington's fishing and shellfish industries, further endanger salmon runs, kill birds and marine mammals, ruin public beaches, and dampen tourism.

On September 15th, the *Barbara Foss* got a rousing send-off as it launched its sixth season of duty. State lawmakers, officials from Ecology, representatives of Foss Maritime Company and the Makah tribe, and others gathered in Seattle to tour the tug and celebrate its success in preventing oil spills in the Strait and on Washington's outer coast.

During 2003, the tug responded to three vessels for a total of 23 assists since spring 1999. The following is a brief description of 2003 tug events:

Seafreeze Alaska

On January 19, 2003, the *F/V Seafreeze Alaska* contacted the USCG's Vessel Traffic Service to report a serious electrical problem that caused its propulsion system to fail. The outbound vessel was dead in the water in the Strait of Juan de Fuca south of Sooke Inlet, British Columbia.

Ecology released the *Barbara Foss* from standby duty to respond to the drifting fishing vessel.

Based on wind and currents, the vessel projected a possible grounding at Angeles Point, west of Port Angeles in about 4 hours. The vessel's master dropped a fishing net trawl "door" to the bottom of the Strait on a long cable to slow their drift. The maneuver was successful. The tug took the vessel under tow and proceeded to Port Angeles.

Buxsund

On January 30, 2003, the 540-foot containership *Buxsund* was outbound for Hong Kong via the Strait of Juan de Fuca. At 2:30 a.m., the ship's main engine was stopped to repair the cooling system following the failure of both main seawater cooling pumps. The *Buxsund* notified the USCG's Vessel Traffic Service Puget Sound (VTSPS) of the problem. The ship was in Canadian waters in the outbound traffic lane, approximately 10 miles east of the entrance to the Strait of Juan de Fuca.

At 7:20 a.m., with the ship drifting northeasterly out of the traffic lane, Transport Canada directed the ship via VTSPS to take a tug and proceed to Port Angeles to effect repairs. The state-funded rescue tug *Jeffrey Foss*, standing in for the *Barbara Foss*, was dispatched to escort or tow as needed. The tug arrived alongside the ship, now underway on its own

9/15/03 - Tug send off with George Galasso, Stephanie Knightlinger, Fred Felleman, Rep. Mike Cooper, Kathy Fletcher and Capt. Bill Archer.



propulsion after about 5 ½ hours of repairs. At 8:20 a.m., the USCG's Marine Safety Office issued an order requiring the ship have a tug escort in U.S. waters and that it proceed to Port Angeles. The ship, under escort by the *Jeffrey Foss*, anchored safely at 2:41 p.m. in Port Angeles for inspection.

Ernest Campbell

On October 11, 2003, the tug *Ernest Campbell* separated from the empty 271-foot double-hulled tank barge, *Dottie*, it had been towing. The nuclear powered attack submarine *USS Topeka* had severed the tow line connecting the tug and barge. The tug was approximately 12 miles west southwest of Cape Flattery, within the Olympic Coast National Marine Sanctuary, but outside the federally established Area-To-Be-Avoided. Winds were reported as 23 to 46 miles per hour with 15- to 20-foot seas, pushing the drifting *Dottie* north at 4 to 5 miles per hour.

The USCG directed the rescue tug, *Barbara Foss*, be called out to assist. Meanwhile, the *Ernest Campbell* was preparing to recover the barge *Dottie*. The *Barbara Foss* stood by to assist the *Ernest Campbell* in its attempt to reconnect to the *Dottie* using an Orville hook (emergency tow retrieval device). The reconnection was made and the *Ernest Campbell* began towing the barge to Port Angeles with the *Barbara Foss* providing an escort.

Preparedness Section

The preparedness section works to assure that all deep-draft vessels, petroleum barges, oil-handling facilities and pipelines are ready to mount effective, rapid responses to oil spills. Section staff analyze and approve spill contingency plans and evaluate drills that test the effectiveness of plans and the strengths of spill management teams. In addition, primary response contractors are approved to be available to plan holders in Washington. The Preparedness section lends its support to the Northwest Area Contingency planning process, maintaining the area plan and developing/testing geographic response plans.

Oil Spill Contingency Plan Review and Approval

Contingency plans describe the steps necessary for carrying out oil spill response operations. Plan holders conduct drills to train personnel and test their ability to respond immediately and to work collaboratively within the incident command system. Ecology evaluates these drills and uses the results to improve preparedness and planning.

In 2003 two facility plans and three vessel plans were approved in Washington State. Plans are approved for a period of five years. Several plan holders developed integrated plans that cover multiple vessels or facilities.

Deployment and Tabletop Drills

Drills test the effectiveness of plans, and over a three year period of time, companies design drills that test each component of their plans. Ecology personnel have many roles at drills: coaches, evaluators, or participating in roles such as the state on-scene coordinator, a member of the environmental unit, joint information center, planning section, operations section or other sections as needed to support the training exercise.

The preparedness section evaluated 32 tabletop drills, including 12 worst case scenario drills. Six of the worst case drills took place over a period of six consecutive weeks in the last quarter of the year.

There were 53 deployment drills, three of these were responses to small spills where drill credit was given. Deployment credits were given to three plan holders through training opportunities set up by primary response contractors.

Ecology initiated one unannounced facility notification drill and 164 unannounced vessel notification drills.

Two on-water SMART protocol (dispersant monitoring) drills were conducted as a joint effort with NOAA, the USCG, and primary response contractors (PRCs) Clean Sound Cooperative, and Polaris Allied Services.

Plan holders tested 15 geographic response plans (GRPs) and five company-specific worksites, or spill control points. Nine drills led to formal notices from Ecology to update existing plans.

Ecology met its goal to provide written evaluations of tabletop and deployment drills within 30 days seventy percent of the time. Some of the delays were due to the large number of worst case drills held during the final quarter of the year and the loss of one staff member to military duty for part of the year.

The Value of Drills

Drills exercise several important functions for response organizations:

- Increases readiness in the event of an actual emergency;
- Provides a means to assess the effectiveness of response plans and response capabilities;
- Demonstrates the knowledge and skill of the plan implementers;
- Serves as a training tool for response personnel;
- Provides an opportunity to practice skills and improve individual performance in a less stressful environment;
- Requires participants to network with each other, work collaboratively with agencies and pre-plan decisions on resources;
- Provides a means to educate and involve the public, media, and key community organizations in response planning;
- Validates existing policies and procedures;
- Identifies planning conflicts;
- Identifies resource needs; and
- Clarifies roles and responsibilities.

Boom deployed in Port Angeles harbor.



Primary Response Contractors (PRCs)

Seven PRC applications were submitted last year and all were approved. The approval period is for two years. The type of equipment tested in 2003 at unannounced PRC inspections included skimmers, response vessels, vacuum trucks and pumps.

DRILLTRAC

DRILLTRAC is an Ecology-driven training and competency program for managing spills through an incident command system. It is the policy of the Spills Program that staff will respond to spills and drills with the same level of competence, realism and intensity. All of the Spills Program staff will be trained through DRILLTRAC. Some of the training materials are available to assist industry and other organizations in making sound decisions during drills and spills. DrillTrac materials are available online at: <http://www.ecy.wa.gov/programs/spills/hottopics/ics/ics.htm>

Oil Spill Contingency Plan Rulemaking

In 2003, the Preparedness Section continued working with a rule advisory committee on updating and consolidating the 11-year-old oil spill contingency plan rules. With the aid of a facilitator, the committee covered most rule subjects before temporarily adjourning to gather more data to finish the discussions. A modeling analysis and cost survey is now being conducted. Ecology plans to hold additional committee meetings in the spring of 2004 to produce a final draft of the rule language. The formal review process will begin in the summer of 2004. If you are not yet signed up to receive rule updates, you may do so by either calling (360) 407-6959, or sending an e-mail to JPIL461@ECY.WA.GOV.

Oil Spill Trajectory Analysis Planner (TAP) Model for Puget Sound NOW AVAILABLE

When an oil spill occurs, where is it likely to go? This is the question asked in every language around the world.

The Puget Sound Trajectory Analysis Planner (TAP) is a computer-based tool that investigates the probabilities that spilled oil will move and spread in particular ways within an area. The TAP model is now available for general release.

Development of TAP began in 2000 and was field tested in 2003 by Ecology in conjunction with the National Oceanic and Atmospheric Administration (NOAA). The intent of the TAP model is to determine how factors such as weather conditions, tides, currents and shoreline types will affect the direction a spill will travel. Shoreline segment impacts for each of 500 individual representative spill trajectories were calculated for varied time frames, spill volumes and product types.

Having this information available will improve spill contingency planning efforts. Oil-handling facilities may calculate planning distances using spill trajectory models that include credible adverse winds, currents and/or river stages, over a range of seasons and weather conditions.

To get a copy of the Puget Sound TAP, please contact:

David Mora

Washington Department of Ecology

Phone: 360-407-6394, Email: damo461@ecy.wa.gov

Or go to website: <http://www.ecy.wa.gov/pubs/0308007.pdf>

Response Section

Response Work

The response section received 3,830 reports of spills in 2003. Of these reports 2,350 were for oil or hazardous materials spills and 1,480 were for methamphetamine drug labs or dumpsites.

Ecology spill responders removed and disposed of 688 cylinders of compressed anhydrous ammonia gas (including 612 five-gallon propane tanks and 76 large 150-pound cylinders), and 920 hydrochloric acid gas generators in 2003. Responders also processed 702 miscellaneous pressurized containers, and noted an insurgence of "ammonia generators." These ammonia generators combine two solid ingredients, which chemically react to produce anhydrous ammonia, which is subsequently collected and used for meth production.

Safely processing these pressurized containers represents a considerable workload with long hours of work in all types of weather, anytime of the day or night. The increase in the ammonia generator use also substantially increases the volume of waste that must be properly disposed of. Ecology responders handled an enormous volume of very dangerous and toxic materials – **all without an injury or chemical exposure.**

The following are some examples of Ecology responses around the state:

Point Wells Oil Spill - Northwest Region

Shortly after midnight on Dec. 30, 2003, the Foss Maritime tank barge 248-P2 was taking on a load of industrial fuel oil from the Chevron-Texaco terminal at Point Wells, near Shoreline, Washington, when the tank overfilled spilling

oil. Crews immediately stopped the flow of oil and began to respond to the spill. Approximately 4,800 gallons of oil entered the water and an additional 1,200 gallons was recovered from the barge deck.

Foss Maritime immediately notified the Coast Guard and state authorities and brought in clean-up crews from National Response Cooperative, Marine Spill Response Corporation, Clean Sound Cooperative and Global Diving and Salvage.

After some unfortunate delays that resulted in minimal on-site containment, crews set up boom around the terminal and barge where the oil initially spilled overboard. The skimmers recovered relatively little oil from the surface of the water.

Oil continued to drift into the main channel off North Seattle and Shoreline. Environmentally sensitive areas were boomed on the eastern shore of Puget Sound, Bainbridge Island and in the Port Madison area.

The response was under the direction of a unified command, led by the USCG, Ecology, the Suquamish Tribe, Foss Maritime Company, and local public officials. Many other federal and state natural resource agencies and staff from Chevron-Texaco provided additional operational, technical and logistical support to the clean-up effort. While we are pleased with the responsible actions taken by Foss Maritime, one of our state's more progressive maritime companies, we will be evaluating the inability of their response contractors to remove the oil before it washed up on the beaches.

Ultimately tides, wind and current concentrated the oil primarily in the Port Madison area. An important shoreline and marsh were badly damaged along a 1½ mile stretch between Point Jefferson and Indianola.

Cleanup has been on-going and the cause of the spill is under investigation.

Pesticide Spill - Eastern Region

On May 13, 2003, a chemical semi truck overturned one mile south of Chewelah on SR 395 in Stevens County. Ecology arrived at the scene and met with the truck company's safety officer and the local state trooper who had assumed the position of Incident Commander.

The semi was on its side in the middle of SR 395 blocking both lanes of traffic. The Spokane Hazmat team arrived on scene and a Unified Command structure was formed with representatives from the Washington State Patrol, Ecology, and Stevens County fire and sheriff's departments.

Two 250 gallon poly containers of 2-4-D amine along with several one gallon containers of Round-Up and 1000 lbs of dry insecticide and herbicides had been loaded onto the truck when it overturned. Only five gallons of 2-4-D amine had leaked from the poly tank and two 2.5 gallon containers of 2-4-D had been ruptured. Metal cages around the large poly tanks absorbed most of the impact. In addition, one bag of dry insecticide was cleaned up and removed.

SR-395 was re-opened after being closed for eight hours. Later it was determined that the driver had lost control after blacking out.

Explosion Hazard Prompts Response - Central Region

On Feb. 17, 2003, the response team received a call reporting a gasoline leak at a store/gas station East of Yakima. Upon arrival, the response team found two 10,000 gallon aboveground tanks sitting in a pool of gasoline



12/30/03 - Response crews on oiled beach following the Foss barge spill at the Point Wells Chevron-Texaco Terminal.

within their secondary containment structure, which subsequently turned out to be leaking. Estimates from the fire department at the scene were that approximately 300 gallons had leaked from the tanks. The surrounding area was evacuated and the station was immediately cordoned off because the spilled gasoline presented a serious explosion hazard. Subsequently, firefighting foam was applied to reduce the potential for explosion. The store's fuel supplier was immediately notified and agreed to remove the remaining fuel from the tanks and suction up the spilled fuel. A check of the store's records revealed a 5,000 gallon discrepancy of missing fuel. Emergency site remediation included removing the old above-ground tanks and excavation of the spill area to remove contaminated soil and recover any pooled fuel. Excavations revealed that the tanks had been leaking for quite some time. Only 1,200 gallons of fuel was estimated to be recovered from the soil and from ground water. A Notice of Correction was issued by Ecology requiring complete cleanup of the site and full inspection and licensing of any subsequent fuel storage and pumping systems.

Tank Truck Explosion - Southwest Region

On Nov. 27, 2003 (Thanksgiving morning), a Reinhard Petroleum tanker truck carrying 11,000 gallons of gasoline veered off state Highway 8 near Elma, Washington. The truck turned over then exploded, killing the driver.

Flames and smoke were visible for miles. The fire burned for about six hours during which traffic was reduced to one east bound lane.

Washington State Patrol took the lead as Incident Commander. Response personnel decided to let the tanker burn to reduce the amount of gasoline leaking into the adjacent wetlands and nearby Cloquallum Creek and ultimately Chehalis River.

The decision to allow the spilled gasoline to burn was based partly on the pollution potential of the wetland versus the air, in addition to reducing the amount of cleanup required after the incident.

Following the explosion and fire, Ecology sampled the soil and water to help determine the extent of contamination and the amount of cleanup required. Samples were sent to Manchester Laboratory for analysis. Foss Environmental did the clean up and oversaw the removal of the truck debris.

It is estimated that a few hundred gallons of gasoline ended up in the wetlands. Later, contaminated soil was excavated from the site and replaced with material designed to control erosion. Replacement vegetation will be planted in the spring of 2004.

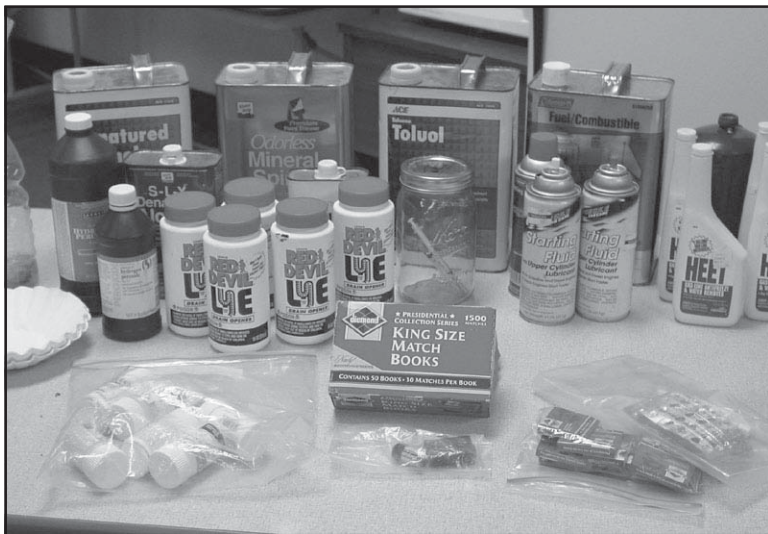
Meth Lab Activities

The number of methamphetamine drug labs reported in Washington in 2003 decreased for the second year in a row, reversing an upward trend that began in 1995.

Ecology received reports of 1,480 sites last year, a 12.5 percent decrease from 2002, when 1,693 sites were found.

In the highest-volume counties – Pierce, King, Snohomish, and Thurston – only Pierce and Snohomish increased their numbers in 2003. Ferry, San Juan and Whitman had no drug labs reported at all, and Garfield, Klickitat and Okanogan reported only one each.

Typical methamphetamine drug lab supplies.



11/27/03 - Reinhard Petroleum tanker truck explosion and fire.

In all, 24 counties showed declines in 2003, and 11 counties increased their numbers.

Presumably there are multiple reasons for the decline in meth labs including:

- Harsher sentencing (possibly four or more years in prison);
- Increased difficulty in buying or stealing pseudo-ephedrine;
- More meth being imported from Mexico;
- Enforcement staff changes (seasoned personnel have more experience at recognizing the signs of drug lab activity); and
- Meth users are cooking smaller quantities and stashing the meth-making supplies throughout their homes.

As some of the meth ingredients become harder to obtain, the production of meth is evolving. These changes make it more difficult to clean up after meth labs.

For example, cooks are mixing fertilizer with drain cleaner in pressurized containers to collect ammonia, creating disposal challenges and risks of explosion.

Some meth-making materials can cause severe injury or death if inhaled or touched, and they require special handling to remove safely. Pseudo-ephedrine, iodine, acids, sodium hydroxide, flammable solvents, anhydrous ammonia,

lithium, sodium metals and red phosphorous are some of the substances used to produce methamphetamine.

Cleaning up meth labs costs the state two million dollars each year, but the cleanup staff have identified ways to save money. By consolidating waste, they significantly reduced the disposal cost of meth waste in the last few years from more than \$11,000 per lab site to about \$750.

Training

In a statewide effort to raise meth lab waste awareness, response staff conducted training sessions for local fire and enforcement officers, city and county road crews, pesticide applicators, police academy narcotics division trainees, and Ecology Youth Corps supervisors.

Meth related chemical hazards training was given to city and county employees working at land-fills, transfer stations, and health departments. The focus was on lab components, chemical and physical hazards, notification protocols, and potential criminal evidence in meth lab waste.

In addition to meth lab waste awareness, Hazardous Materials Operations training was provided to local fire departments.

Weapons of Mass Destruction

Ecology response staff assisted with the year-long development of the largest weapons of mass destruction (WMD) international drill ever conducted: TOPOFF 2. The TOPOFF (short for Top-Officials) exercise consisted of simulated WMD attacks: a dirty bomb in Seattle and a biological weapon attack in the Chicago metropolitan area. The exercise not only involved a myriad of agencies in the host cities, but also involved simulated exercise play in Washington DC and Canada.

The purpose of the exercise was to test the Nation's response and preparedness for an attack involving weapons of mass destruction. The exercise offered the opportunity to identify where strengths and weaknesses exist and to test communication strategies.

In May 2003, several agencies including Ecology, King County, City of

Seattle, Canadian representatives, the U.S. Department of Homeland Security and the U.S. Department of State participated in the Seattle scenario, a hypothetical explosion containing radioactive material.

Countless hours were invested into creating and implementing the TOPOFF 2 exercise. The response demonstrated the joint coordination capabilities of the emergency preparedness and response authorities.

Ecology's role in this radiological event was to support field monitoring at the explosion site and assist other agencies in characterizing the down wind spread of radiological contamination. In preparation for this event, Ecology responders across the state have attended intensive chemical, biological, radiological, and ordinance/explosive training offered by the US Department of Justice Office of Domestic Preparedness. Attendees were able to work hands-on with live nerve agents such as sarin and VX, as well as radioactive material. An additional benefit of attending these classes is that all expenses are covered by the federal government.

SpillSCENE

Spill Scene is published by the Washington State Department of Ecology to provide information on oil and hazardous substance spill prevention, preparedness and response. We welcome your comments and questions. Call (360) 407-7455 or write: Editor, *Spill Scene*, Department of Ecology, Spills Program, P.O. Box 47701, Olympia, WA 98504-7701. Visit our website at www.ecy.wa.gov/programs/spills/spills.html

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Ecology is an equal opportunity agency. If you have special accommodation needs, please contact the Spills Program at (360) 407-7455 (Voice) or (TTY) at 711 or 1-800-833-6388.

Natural Resource Damage Assessment

When oil is spilled to state waters, the responsible party must compensate the state for any damages to public natural resources. Ecology works with the responsible party to assess natural resource impacts and estimate the monetary value of damages. The responsible party may develop and implement a restoration project in lieu of payment.

In 2003, resource damage payments of \$153,808 were received in compensation for oil spills. Those monies are deposited in the Coastal Protection Fund and can only be used to fund environmental restoration projects. The Resource Damage Assessment (RDA) Committee met throughout the year to conduct pre-assessment screenings for several oil spills that had occurred. In most cases, the compensation schedule (WAC 173-183) was used to calculate damages to the environment.

Geographic Response Plans (GRPs)

Geographic Response Plans (GRPs) identify and prioritize strategies to protect specific natural resources for a particular area. This pre-planning prepares staff for the initial response period of a real spill.

Updates to the marine GRPs, including the Lower Columbia River, were completed in 2003 and were distributed via Adobe Acrobat PDF files on the Spills Program web page. For more information go to: <http://www.ecy.wa.gov/programs/spills/preparedness/GRP/GRP%20web%20page%20intro.htm>

OTHER PROJECTS

Olympic Pipeline

In 2003, most of the environmental penalties issued to Olympic Pipe Line for its 1999 Bellingham incident were settled through legal agreements between Shell Oil and the Department of Ecology.

Under the terms of the consent decrees, Shell pays the state \$5 million in civil penalties and Olympic pays \$2.5 million over five years. In addition, the pipeline company will spend an estimated \$15 million for pipeline safety improvements in Washington and Oregon.

In December, an innovative settlement was agreed upon by Ecology and Shell Oil, which took over management from its predecessor, Equilon.

Shell will pay \$4 million to the city of Bellingham and \$1 million to the Whatcom Land Trust in lump-sum payments.

The money will be used to fund projects directed to protect and restore the city's streams and shorelines and to purchase additional salmon, eagle and elk habitat along the Nooksack River and other locations.

The criminal pleas and civil settlements came after a National Transportation Safety Board investigation, federal grand jury indictments, state regulatory fines and the persistence of attorneys with the U.S. Department of Justice and the Washington Attorney General's office.

Olympic Pipe Line Company filed for bankruptcy in 2002. A penalty of \$2.5 million issued to the company by Ecology is among debts Olympic listed in federal bankruptcy papers.

Protocols - Ecology and the U.S. Coast Guard

In May 2001, Governor Locke and Rear Admiral Erroll M. Brown, Commander of the Thirteenth U.S. Coast Guard District, signed a Memorandum of Agreement on Oil Pollution Prevention and Response. Ten protocols were developed and implementation began on nine of these in 2003. The protocols expand our partnership on activities that span the breadth of our mutual spill prevention, preparedness, and response efforts.

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